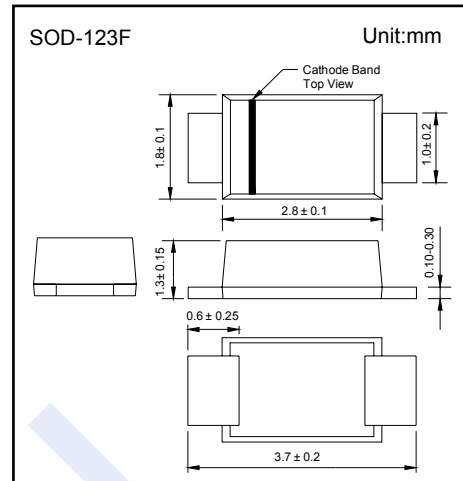


## Schottky Diodes

### MBR120F ~ MBR1200F

#### ■ Features

- Low power loss, high efficiency
- High forward surge current capability
- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0



#### ■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	MBR 120F	MBR 130F	MBR 140F	MBR 150F	MBR 160F	MBR 170F	MBR 180F	MBR 190F	MBR 1100F	MBR 1200F	Unit	
Repetitive Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	70	80	90	100	200	V	
Maximum RMS Voltage	$V_{RMS}$	14	21	28	35	42	49	56	63	70	140		
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	70	80	90	100	200		
Forward Voltage @ $I_F=1A$	$V_F$	0.55		0.7			0.85			0.95			
Averaged Forward Current. $T_a=75^\circ\text{C}$	$I_{FAV}$	1											A
Peak Forward Surge Current $T_a=25^\circ\text{C}$	$I_{FSM}$	25											
Maximum DC Reverse Current $T_a=25^\circ\text{C}$ $T_a=100^\circ\text{C}$	$I_R$	1											mA
		10											
Typical Junction Capacitance (Note.1)	$C_j$	110				80							pF
Junction Temperature	$T_J$	-65 to 125						-65 to 150					$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-65 to 150											

Note.1: Measured at 1MHz and applied reverse voltage of 4.0V D.C.

#### ■ Marking

NO.	MBR120F	MBR130F	MBR140F	MBR150F	MBR160F	MBR170F	MBR180F	MBR190F	MBR1100F	MBR1200F
Marking	D12	D13	D14	D15	D16	D17	D18	D19	D110	D120

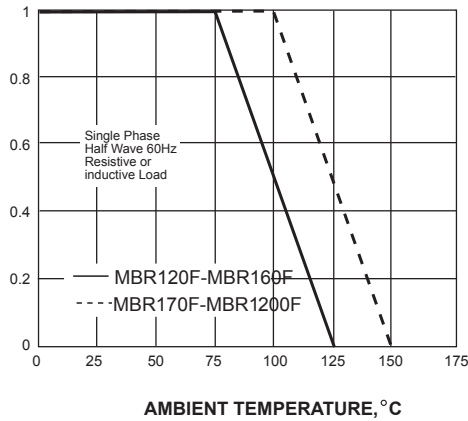
# Schottky Diodes

## MBR120F ~ MBR1200F

■ Typical Characteristics

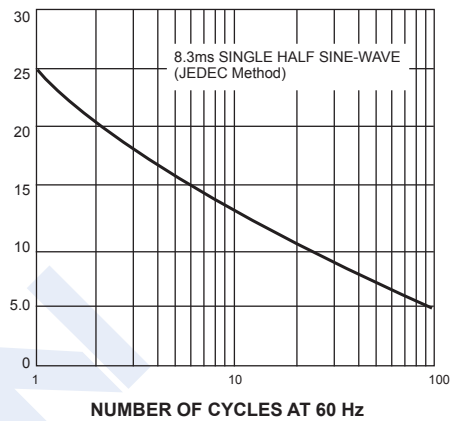
AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



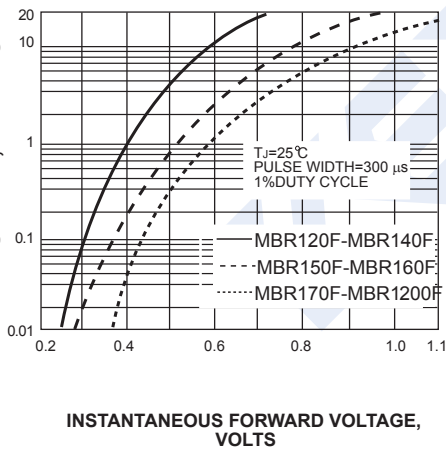
PEAK FORWARD SURGE CURRENT, AMPERES

FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



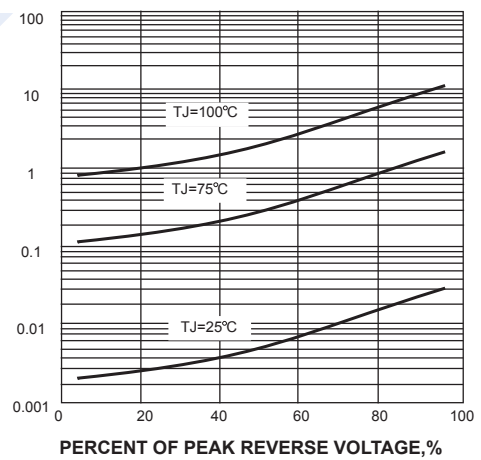
INSTANTANEOUS FORWARD CURRENT, AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



INSTANTANEOUS REVERSE CURRENT, MILLIAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE

